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ARIZONA STATE UNIVERSITY ■ COLLEGE OF BUSINESS
BUREAU OF BUSINESS AND ECONOMIC RESEARCH

Arizona Migrants Better Educated, More Skilled

People who migrated — both to and from Arizona between 1975 and 1980 — had a demographic profile considerably different from that of the entire Arizona population. However, little distinction existed between the profiles of in-migrants and out-migrants, according to U.S. Bureau of the Census data.

Since so many migrants were either young adults or senior citizens (see the July 1985 *Arizona Business*), children represented a relatively small proportion of those who moved (see Table 1). Many migrants — presumably college students — lived in group quarters, such as dormitories, or with non-relatives. Compared to the entire Arizona adult population, a greater proportion of migrants were divorced or had never married.

Correlated with the greater educational achievement shown in Table 1, migrants were more likely to work at an executive, professional or technical occupation. In addition, a larger

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Valley Inflation Temporarily Ceases

No inflation was measured during the fourth quarter in the Phoenix metropolitan area, following a slight 0.3 percent gain in the third quarter. From fourth quarter 1984, prices of goods and services rose just 3.8 percent to an index value of 191.5 in fourth quarter 1985 (1977 = 100).

COMPONENT INDEXES

Because of seasonal factors, inflation during the fourth quarter is usually minimal. The two largest categories — housing and transportation — both declined during fourth quarter 1985; the drop in housing costs was due primarily to the switch to winter electricity rates. A modest increase in food prices and a large seasonal rise in entertainment costs neutralized these declines.

Food and Beverages

As predicted last quarter, food prices resumed an inflationary path during the fourth quarter after a third quarter decline (see Table 1); the typical seasonal moderation occurred a quarter earlier than usual in 1985. Grocery store prices rose 1.3 percent during the fourth quarter, led by a large increase in prices of fruits and

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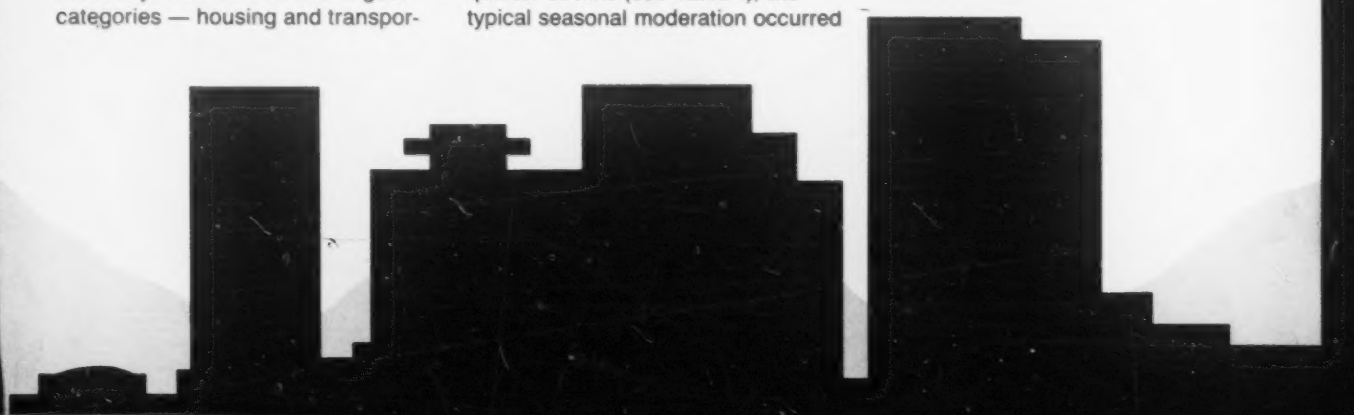

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proportion of migrants were skilled workers, but a smaller percentage worked in sales, service or clerical occupations.

REGIONAL DIFFERENCES

The demographic profile of Arizona migrants did not vary substantially by the region of the country from which or to which they moved, even though the number of migrants differs greatly among regions. Migrants to Arizona from the Midwest more frequently worked at sales and clerical positions than did other migrants, and their incomes were slightly lower. In contrast, migrants from the South more commonly held professional and technical positions that yielded slightly higher incomes. Migrants both to and from the Northeast were less frequently married. A larger proportion of the people who moved to the Northeast from Arizona had a greater educational attainment and held a professional job.

Immigrants from other countries who settled in Arizona had considerably different demographic characteristics. Compared to all migrants, immigrants were more frequently members of a large, extended family. Since a greater proportion of the adults had no income, the extended members of the family were more likely to depend only on the householder's income. Immigrants were less likely to be office workers of any type but more likely to be laborers. Although the proportion of immigrants without a high school education (16.7 percent) was twice that of other migrants (7.5 percent), the percentage with a college degree was nearly as great; a larger proportion of immigrants gained a graduate degree.

WESTERN STATES

Those who left Arizona for other western states commonly were born in the West, particularly in Arizona or in the state to which they moved. While those born east of the mountain states constituted 67 percent of Arizona's in-migration between 1975 and 1980 and 54 percent of its 1980 population, they made up only approximately 40 percent of its out-migration to other western states.

The characteristics of Arizona migrants who moved to and from Colorado, Nevada and Utah illustrate the type of differences found among western states:

- Colorado. People who moved between Arizona and Colorado were more highly educated than migrants as a whole. Those who moved to Arizona had higher incomes and more frequently worked in executive, professional and technical occupations.
- Nevada. In sharp contrast to Coloradan migrants, in-migrants from Nevada were less highly educated and less likely to hold professional or technical positions. Since so much of Nevada's economy is based on services, people moving both to and from Nevada frequently worked in that industry.
- Utah. People who moved to Arizona from Utah were more frequently married and highly educated; those who moved to Utah from Arizona were more commonly members of large families or were young adults who had not married.

TABLE 1
DEMOGRAPHIC PROFILE
Arizona Residents, 1980, and Migrants, 1975-80

Household Relationship

	Householder	Spouse	Child	Other Relative	Non-Relative	Group Quarters
Total Population	35.2%	21.9%	32.5%	4.6%	3.9%	1.9%
In-migrants	38.5	24.4	23.5	3.5	6.5	3.4
Out-migrants	37.5	22.3	25.2	3.9	6.1	5.0

Educational Attainment, Persons 18 Years or Older

	Elementary	High School	Some College	College Degree
Total Population	13.0%	50.1%	21.8%	15.1%
In-migrants	7.5	49.1	24.2	19.3
Out-migrants	7.5	47.5	24.5	20.7

Marital Status, Persons 15 Years or Older

	Married	Never Married	Divorced	Widowed
Total Population	61.4%	24.6%	7.6%	6.3%
In-migrants	60.4	26.0	9.3	4.3
Out-migrants	57.2	26.5	12.1	4.2

Occupation, Persons 16 Years or Older

	Executives, Professionals, Technicians	Sales, Clerical, Service Workers	Skilled Workers, Machinists, Transporters	Farm Workers, Laborers
Total Population	28.2%	41.1%	23.8%	7.0%
In-migrants	30.5	34.7	26.8	8.0
Out-migrants	30.0	37.3	24.7	8.1

Source: U.S. Department of Commerce, Bureau of the Census, *Census of Population, 1980: County-to-County Migration Flows* (machine-readable data file), 1984.

SUMMARY

Arizona migrants between 1975 and 1980 were more highly educated than the Arizona population as a whole and more frequently worked at executive, professional and technical occupations. Although regional differences in these characteristics were slight, some variations existed from state to state. People who moved between Arizona and other western states generally were born in the West; they were not eastern migrants who later relocated in the West.

— **Jacqueline Fifield**
Research Analyst

— **Timothy D. Hogan**

— **Tom R. Rex**
Research Manager

Dr. Hogan is Professor of Economics in the ASU College of Business and Director of the State Data Center/ASU.

Migration to and from Arizona Changes in the '80s

Arizona experienced tremendous net in-migration from Northeastern and Midwestern states but net out-migration to most neighboring Western states between 1975 and 1980 (see the July 1985 *Arizona Business*). Since 1980, however, Arizona has received proportionately less, though still substantial, net in-migration from Eastern states, while migration flows from most Western states have reversed to a net positive number.

DATA SOURCES

Most information on migration is derived from the decennial censuses conducted by the U.S. Bureau of the Census. These data are available only for five-year periods, e.g. 1975-80, and have been gathered from an 8 percent sample of the population.

Another source of migration statistics is the Internal Revenue Service (IRS), but their information also is limited. First, it has been available only since 1970 for selected years, and the most recent data were collected in 1983. Further, complete tallies of migration are not provided since the IRS counts only those who file income tax returns and those whose social security numbers match from year to year; hence, the measured proportion of probable total migration varies by year. However, the IRS information does allow a comparison of migration patterns for various years, and it provides an update, albeit not current, to 1980 census data.

COMPARISON OF SOURCES

Because of the limitations of each of these sources, a direct comparison of migration between sources is not possible. However, for the 1975-80 period, data that are available from the two sources generally agree as to each state's proportion of net migration. For example, the Census Bureau and the IRS concur that Arizona suffered net out-migration to 11 states, all in the Western or South-central regions; the IRS adds Alaska to the list. The only major discrepancy is that the IRS shows much greater net out-migration to New Mexico.

In subdividing net migration into its components, the sources also largely agree on out-migration, although the IRS measures more migrants to New Mexico and less to Washington than does the Census Bureau. For in-migration, however, a geographical difference exists: The IRS information shows less in-migration to Arizona from the Northeastern and Midwestern states, especially Illinois, Michigan and New York, but greater in-migration from Western and Southern states, particularly California, Nevada, New Mexico, Texas and Oklahoma.

CHANGING PATTERNS

Examination of the IRS data reveals significant swings in migration patterns between 1970 and 1983. The geographical distribution of migration flows during the mid-1970s — the recession years of 1974-75 and the weak recovery years of 1976-77 — was considerably different from that of either the early 1970s or the post-1978 period, which were generally similar. Thus, because they primarily cover the 1975-79 period, the census data provide a biased view of the dominant migration patterns since 1970.

Net Migration

While Arizona experienced net out-migration to most Western states during the mid-1970s, the trend has reversed since 1980, with net in-migration from Idaho, Oregon, Utah, Washington and Wyoming; net migration from Nevada swung positive in 1983. Arizona's net migration from these states was in the plus column during the early 1970s as well.

From 1980 through 1983, Arizona continued to experience net out-migration to Texas and New Mexico; the negative balance with New Mexico was greater than in the 1970s. Net out-migration also persisted with Alaska, Louisiana and Oklahoma.

The improved migration flows from Western states to Arizona were offset by less net in-migration from many Northeastern and some Midwestern states. States such as New York, New Jersey and Illinois provided a far smaller share of Arizona's net in-migration from 1980 to 1983; however, these states remained among the most important contributors. Thus, while a swing away from the extreme patterns of the mid-1970s has occurred, considerable migration from the Northeast and Midwest continues.

In- and Out-Migration

The improved migration flows from Western states to Arizona were due to a combination of reasons, which varied by state, of increased in-migration to Arizona and decreased out-migration from the state. Increased in-migration explains the improvement in net migration to Arizona from Nevada and Wyoming. From Oregon and Utah, in-migration rose at the same time that out-migration to those states fell. Out-migration from Arizona to Idaho and California decreased.

Texas and New Mexico experienced greater flows in both directions, though the largest increase occurred in the number of Arizonans moving to New Mexico. Continuing problems with the Texas economy since 1983 suggest that net migration to Arizona may have swung positive in 1984-85 for the first time since the early 1970s.

From the Northeastern and Midwestern states, decreased in-migration to Arizona is more responsible for the state's decline in net migration than an increase in out-migration from Arizona to those regions. The latter contributed to the decline in some states, however, particularly in New York.

SUMMARY

Arizona's population continues to grow rapidly during the 1980s, at approximately the same pace as in the 1970s. Most of the growth is a result of migration. While a redistribution of the sources of these migrants has occurred since 1978, returning Arizona to the pattern of the early 1970s, the total growth of the state has not been affected.

— Timothy D. Hogan

— Tom R. Rex
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vegetables, reversing last quarter's sharp decline. Lower prices for dairy products and other food-at-home items (see Table 2) partially offset this gain.

Housing

The 1.4 percent decline in housing costs was the sharpest since fourth quarter 1982. Prompted by lower winter electricity rates, housing costs have declined in the fourth quarter for four successive years. Fuel and utility costs posted their largest decline ever as both electricity and natural gas rates dropped, the latter for the second successive quarter. Prices of household furnishings and operations also registered their greatest drop, while slight gains in renters' and homeowners' costs kept the shelter subcategory nearly flat.

Transportation

After the largest decline on record during the third quarter, transportation costs fell further during the fourth quarter. Used car prices dropped 5 percent, the fourth successive quarterly decline, following four years of rapid inflation. Further reductions were recorded in the prices of gasoline, vehicle parts and equipment, and vehicle finance charges; in each case, prices were lower than they were one year earlier.

Medical Care

Medical care costs increased at a relatively moderate rate for the third successive quarter, and the annual inflation rate for this category finally dropped to less than double-digit range. The cost of hospital services barely rose. Health insurance premiums registered a rare decline after three years of rapid advances and three quarters of slight gains.

COMPARISON AREAS

The quarterly inflation rate in the Phoenix area was again less than the national average, due to smaller gains in most categories, particularly housing and transportation (see Table 3). The percent change from one year ago, 3.8 percent, is comparable to the national average for the first time in two years, with Valley inflation lower in the housing, transpor-

TABLE 1
PERCENT CHANGES IN
METROPOLITAN PHOENIX CONSUMER PRICE INDEX

		Percent Change from Preceding Quarter							
Expenditure Category	*Relative Importance*	*1st 1984*	*2nd 1984*	*3rd 1984*	*4th 1984*	*1st 1985*	*2nd 1985*	*3rd 1985*	*4th 1985*
ALL ITEMS	100.0	1.9	1.5	1.7	0.7	1.8	1.6	0.3	0.0
Food and Beverages	19.0	1.8	0.7	1.0	0.2	2.6	1.1	-0.7	1.6
Housing	38.9	0.6	2.0	2.3	-0.1	1.2	1.4	2.2	-1.4
Apparel and Upkeep	4.8	2.5	-1.3	-0.1	0.4	2.2	3.1	-2.5	2.7
Transportation	21.7	1.8	2.3	1.2	2.2	1.7	2.8	-2.2	-0.9
Medical Care	6.6	11.4	1.1	3.0	2.7	3.4	1.3	2.3	1.6
Entertainment	4.6	1.1	2.3	2.6	0.3	4.8	0.2	2.4	6.8
Other Goods and Services	4.3	0.8	1.1	2.1	1.2	1.4	1.7	0.3	0.9

TABLE 2
METROPOLITAN PHOENIX CONSUMER PRICE INDEX
Fourth Quarter 1985
(1977 = 100)

Expenditure Category	*Last Qtr. Index*	*This Qtr. Index*	*Percent Change*	*Year-Ago Change*
ALL ITEMS	191.4	191.5	0.0	3.8
Food and Beverages	171.0	173.7	1.6	4.6
Food	171.7	174.0	1.4	4.5
Food at Home	168.7	170.9	1.3	4.2
Cereal and Bakery Products	185.6	186.5	1.6	6.1
Meats, Poultry, Fish, and Eggs	156.4	156.6	0.1	0.4
Dairy Products	160.9	160.4	-0.3	2.7
Fruits and Vegetables	177.3	190.6	7.5	8.3
Other Food at Home	160.8	160.0	-0.5	5.1
Food Away from Home	174.7	177.2	1.4	5.0
Housing	202.0	199.1	-1.4	3.3
Shelter	215.1	215.4	0.1	4.3
Renters' Costs**	116.1	116.4	0.3	3.8
Homeowners' Costs**	108.1	108.3	0.2	4.2
Fuel and Other Utilities	181.5	168.4	-7.2	0.0
Gas (piped) & Electricity	206.2	182.8	-11.3	-0.5
Household Furnishings & Operations	153.0	150.7	-1.5	2.4
Apparel and Upkeep	144.2	148.1	2.7	5.5
Transportation	187.7	186.0	-0.9	1.3
Private Transportation	184.4	182.4	-1.1	1.5
New and Used Cars	193.9	190.2	-1.9	-1.3
Motor Fuels	196.0	189.4	-3.4	-1.7
Public Transportation	241.2	244.1	1.2	-1.4
Medical Care	257.2	261.2	1.6	8.8
Entertainment	184.7	197.2	6.8	14.5
Other Goods and Services	171.9	173.4	0.9	4.3

An ** indicates that the base period is second quarter 1983.

TABLE 3
METROPOLITAN PHOENIX CONSUMER PRICE INDEX
UNITED STATES AND COMPARATIVE CITIES
Fourth Quarter 1985

	Percent Change from Last Quarter		Percent Change from One Year Ago			
Expenditure Category	*Phoenix*	*United States*	*Phoenix*	*United States*	*Denver*	*San Diego*
ALL ITEMS	0.0	1.0	3.8	3.6	2.9	4.2
Food and Beverages	1.6	0.6	4.6	2.5	1.0	2.3
Housing	-1.4	0.6	3.3	4.1	2.9	7.1
Apparel and Upkeep	2.7	2.9	5.5	2.9	0.0	-1.6
Transportation	-0.9	0.8	1.3	2.2	2.5	1.6
Medical Care	1.6	1.6	8.8	6.6	8.3	4.6
Entertainment	6.8	1.2	14.5	3.9	2.8	2.7
Other Goods and Services	0.9	2.9	4.3	5.9	6.3	4.1

Source (Tables 1, 2 and 3): Metropolitan Phoenix data compiled by the Bureau of Business and Economic Research, College of Business, Arizona State University, in cosponsorship with Valley National Bank; other data in Table 3 are from the U.S. Department of Labor, Bureau of Labor Statistics.

tation, and other goods and services categories.

OUTLOOK

While the near absence of inflation during the second half of 1985 cannot be expected to continue, the Valley's rate probably will not exceed the national average by as large a margin in 1986 as it did between late 1983 and mid-1985. The year-over-year percent change in the Phoenix CPI likely will remain near 4 percent during the first half of 1986 but should accelerate to more than 5 percent later in the year.

— Tom R. Rex
Research Manager

Alternative Mortgage Instruments Less Popular in '85

New ways to finance the purchase of a home continued to be widely used in 1985, but they made up a smaller proportion of transactions than in 1984. These new mortgage types had been developed to solve the predominant problem of homebuyers during the 1980s: the financing of their purchase in times of high mortgage interest rates.

In a recent research project sponsored by Phoenix Magazine Publishing, Inc., the Arizona Real Estate Institute in the ASU College of Business surveyed more than 350 recent homebuyers in the Phoenix metropolitan area. The intent of this survey, the 11th since 1979, was to identify and analyze basic factors relating to the home purchase decision. A profile of financial characteristics is presented in Table 1.

CURRENT TRENDS

The traditional 30-year, fixed-rate mortgage still constituted more than one-half of all new financing obtained, but FHA and VA mortgages were more frequently selected than conventional mortgages. Graduated payment mortgages were the most popular of the newer financing forms, selected by 15 percent of the respondents; however, this instrument had been chosen by 20 percent in the 1984 survey. Adjustable or variable-rate mortgages were also less frequently used in 1985 than in 1984 (14 percent compared to 18 percent), while the share of 15-year, fixed-rate mortgages remained steady at 10 percent.

Young, affluent buyers were more likely to use the newer mortgage instruments. Seventy percent of the adjustable or variable-rate mortgages were made to households whose head was less than 45 years old; 64 percent were created for households with incomes in excess of $50,000. Those who selected FHA mortgages also were relatively young, but their incomes were lower.

Since the most popular alternative instrument, the adjustable-rate mortgage, usually carries a lower initial interest rate than the fixed-rate mortgage, the survey sought to determine why this alternative was not more widely used. The primary concerns expressed by respondents included interest rates that could rise, resulting in higher monthly payments (noted by 74 percent of the respondents); instability in payments (63 percent); and negative amortization (58 percent). The concern over rising interest rates was much more evident among those who selected the traditional mortgage than among those who chose the adjustable-rate mortgage.

Among resale homebuyers, seller, creative or second-mortgage financing was also a popular alternative, used by 25 percent of this group of respondents. The financial profile of these mortgages included a $26,700 principal at 12.5 percent for 15 years, resulting in a $430 monthly payment. The most common form was a second mortgage provided by a lending institution. The use of seller carryback financing dipped appreciably since 1983.

SUMMARY

The decline in popularity of the various alternative financial instruments can be attributed to the drop in interest rates during 1985 and to the general improvement in housing affordability. If mortgage rates continue to fall, the need for and use of these alternatives is likely to dwindle further.

— Jay Q. Butler

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TABLE 1
PURCHASE TRANSACTION PROFILE OF METRO PHOENIX HOMEBUYERS
(Median Values)

Housing Type	*Number of Responses*	*Purchase Price*	*Down Payment*	*Interest Rate*	*Monthly Payment*	*Square Footage*
Single Family - New	115	$89,450	$ 5,000	11.85%	$890	1,750
Single Family - Resale	150	78,500	10,000	11.12	681	1,700
Townhouse/Condominium - New	35	74,500	3,550	11.00	637	1,135
Townhouse/Condominium - Resale	23	65,000	15,000	12.00	550	1,430

Source: Survey conducted by the Arizona Real Estate Institute, College of Business, Arizona State University.

Purchasing Indicators Peak in December

The purchasing indicators closed out 1985 by signaling that the pace of economic growth is stepping up. All indicators of economic activity were on the plus side in December (Table 1), for the first time since August. Prices remained well under control, with December's increase the smallest of the past six months. Inventory rebuilding appeared to be starting again, after three months of contraction. Lead times on purchased items registered the largest stretch-out of 1985. Both new orders received and production experienced their greatest increases since September. Overall, the Arizona economy reached a new, high level in December.

The economy is positioned to enjoy a solid rise in the first half of 1986 and probably during the entire year. As 1986 begins, the economy still is expanding, and the growth curve likely will begin to tilt up in the first quarter. While several economic uncertainties exist — the federal budget deficit, tax reform, interest rates, and the foreign trade imbalance — the forces still are present that buoyed up the economy over the past three years of steady, although spotty, economic growth. The expansion shows no sign of faltering. Instead, it should get stronger, helped by the low and predictable inflation rate, the need to rebuild inventories, and an increasing flow of new orders.

TABLE 1
DECEMBER PURCHASING SURVEY

	Percent of Purchasing Managers Indicating Each Response (December compared to November)		
Key Indicators	*Higher*	*Same*	*Lower*
Prices paid for major commodities	13	79	8
Delivery time from vendors	33	57	10
Purchased materials inventory level	32	39	29
New orders received	39	38	23
Production	36	42	22
Employment	18	69	13
Purchases	43	35	22

Source: Purchasing Management Association of Arizona and the Purchasing Management Association of Southern Arizona.

TABLE 2
ANTICIPATED EXPENDITURES FOR NEW PLANT AND EQUIPMENT

	Percent of Purchasing Managers Indicating Each Response		
	Higher	*Same*	*Lower*
1986 compared to 1985	48	33	19
1985 compared to 1984	53	28	19
1984 compared to 1983	53	31	16
1983 compared to 1982	27	26	47
1982 compared to 1981	40	19	41
1981 compared to 1980	49	27	24

Source: Purchasing Management Association of Arizona and the Purchasing Management Association of Southern Arizona.

PRICES

Prices paid for major purchased items rose in December, marking the 36th consecutive month of price hikes. However, the December increase rate was much smaller than that of November and, excepting the month of May's advance, it was the smallest since February 1983. The past year has seen a degree of price stability not experienced since the slump of 1982, and it likely will continue well into 1986, helped substantially by the softness of the energy market. This should contribute to a continuation of orderly economic growth.

DELIVERY TIME

Delivery time on shipments from vendors continued to stretch and at a rate almost double that of November. The December advance in lead times was the largest of the past 16 months (since August 1984). Activity in vendor firms is intensifying, as new order bookings, production, and purchases all continue to increase. This shows that the rate of economic growth is accelerating.

INVENTORIES

Inventory levels of purchased materials rose slightly in December. While Arizona firms continue to keep a firm grip on stocks, the December hike follows three consecutive months of inventory declines and a year in which increases were recorded for only half of the months (primarily during the first part of the year). Hopefully, this is the beginning of stock rebuilding, which would move the Arizona economy to a faster growth track.

NEW ORDERS

New orders received by Arizona firms grew for the 36th consecutive month, at a rate somewhat higher than in November and the highest since September. While the increase rate still was much lower than in almost any month of 1983, 1984, and the first half of 1985, the rate of order bookings has increased in each of the past three months, showing that the economic expansion is alive, well, and accelerating.

PRODUCTION

Production also went up in December, closing out its third year of consecutive monthly increases. The December advance was larger than that of November and the highest of the past three months.

EMPLOYMENT/PURCHASES

Employment enjoyed a minor increase in December — the 12th consecutive monthly rise. Employment hikes have been moderate over the past six months, as Arizona firms continue to be cautious in interpreting the future course of the economy.

Continued improvements in the job situation are likely in 1986.

Purchases of materials and supplies by Arizona firms were higher, but the month-to-month increase rate has been about the same for the past three months. As the new order and production rates continue to grow, a further buildup in purchase actions can be anticipated, which will push the expansion well into its fourth year.

CAPITAL EXPENDITURE PLANS

Each December, survey respondents are asked a special question concerning their *anticipated* expenditures for new plant and equipment the following year (Table 2). The December 1985 responses indicate that 1986 will be a good year. Expenditures will be substantially higher than in 1985, a year of consistent, although moderate, expansion. Evidently, Arizona firms feel that the upward economic movement will continue in the new year and that additional productive capacity will be needed. This capital investment, if actually realized, will be a major factor in keeping the expansion going.

— **Harold Fearon**

Dr. Fearon is chairman of the Department of Purchasing, Transportation, Operations in the ASU College of Business and is the National Association of Purchasing Management Professor.

Arizona Purchasing Survey

Now in its 24th year of monthly reporting, Dr. Harold Fearon's survey of Arizona business conditions utilizes data from a questionnaire sent to members of the purchasing management associations of Arizona and southern Arizona. It asks them to indicate the direction of activity — higher, unchanged, or lower — of seven key measures of economic activity in the month just ended. These purchasing managers deal daily with supply, demand, and price factors in the marketplace; their aggregate readings have accurately charted the state's economic course for two decades, providing timely data on turning points.

Arizona Leading Index Slides in November

The Arizona Index of Leading Economic Indicators fell in November, the second decline in the last three months. November's 0.2 percent decrease lowered the index to 105.9 from 106.1 in October (1977 = 100).

The diffusion index — the percentage of rising components — registered a strong 65 percent in November, but all of the advances were weak. As a whole, the five indicators derived from a survey of Arizona purchasing managers recorded a moderate gain for the second straight month, the strongest consecutive-month performance since mid-1983.

Two other components — residential building permits and unemployment insurance claims — were sharply negative, causing a decline in the leading index as a whole (see Table 1). Unemployment insurance claims merely continued the sawtooth pattern of the last two years. The decrease in residential building permits, however, was the third in four months, placing this component below its level of early 1985. (The large positive response to lower interest rates that was measured in July has been completely offset.)

A flat money supply (M2) contributed to the November weakness, following a rare decline in October.

OUTLOOK

Despite the decline in the Arizona leading index, the chance of a recession beginning in the next several months remains slight — only 6 percent. The index continues to signal a better year in 1986 than in 1985 for the Arizona economy, but only by a modest amount. The stubbornly erratic nature of the index suggests that fluctuating economic performance will persist during 1986.

The national leading index rose for the seventh consecutive month in November, only because of the sharp gain in the stock market, which is not a wholly reliable indicator. A 1986 GNP growth rate of 3.7 percent is the latest forecast from the leading index, which generally has been an accurate predictor within ± 0.7 percentage points. The lower end of the range seems likely in 1986, but this rate still represents an improvement from the 2.4 percent GNP gain in 1985.

— **Tom R. Rex**
Research Manager

TABLE 1
NET CONTRIBUTION OF INDIVIDUAL COMPONENTS TO THE ARIZONA INDEX OF LEADING ECONOMIC INDICATORS

	Net Contribution*			
	Aug.	*Sept.*	*Oct.*	*Nov.*
Delivery Time*	.10	−.11	.14	−.02
Inventory Levels*	.06	−.09	.01	.03
New Orders*	.13	−.09	−.01	.10
Production*	.07	−.03	−.05	.01
Employment*	.12	−.15	.07	.08
Residential Building Permits	−.37	.03	−.13r	−.28
Unemployment Insurance Claims	.16	−.21	.19	−.15
Average Workweek, Manufacturing	.02	.07	−.10r	.01
Money Supply	.35	.18	−.06	.00
Change in Sensitive Materials Prices	−.04	.01	.06	.04
OVERALL INDEX	.59	−.39	.12r	−.19

rRevised

*The net contribution of each component is calculated by multiplying the monthly percent change in its index by its relative importance.

*Based on indicators from the purchasing management associations of Arizona and southern Arizona.

Source: Bureau of Business and Economic Research, College of Business, Arizona State University.

ARIZONA ECONOMIC INDICATORS

	Month or Quarter	Value	Percent Change from Previous Period	Percent Change from Year Ago	Year-to-Date Value	Year-to-Date Percent Change from Year Ago
GROSS STATE PRODUCT (In Billions of Dollars, at Annual Rate)						
Arizona - Current Dollars	2nd Qtr.	45.139	4.7	10.9	NA	NA
Arizona - 1972 Dollars	2nd Qtr.	21.324	1.5	7.7	NA	NA
CONSUMER PRICE INDEX (1977 = 100)						
Metropolitan Phoenix	4th Qtr.	191.5	0.0	3.8	NA	NA
INDEX OF LEADING ECONOMIC INDICATORS (1977 = 100)						
Arizona	Nov.	105.9	-0.2	1.8	NA	NA
BUILDING PERMITS (Total Dollar Value in Thousands)						
Maricopa County	Oct.	332,078	1	8	3,549,777	8
Pima County	Oct.	55,475	1	-21	673,000	2
Balance of State	Oct.	56,031	-16	15	-594,114	11
Arizona	Oct.	443,584	-1	3	4,826,123	7
TOTAL HOUSING UNITS AUTHORIZED						
Maricopa County	Oct.	5,604	45	8	47,736	-11
Pima County	Oct.	1,160	17	-13	11,115	-19
Balance of State	Oct.	1,246	-3	27	14,529	29
Arizona	Oct.	8,010	29	7	73,604	-6
HOME SALES						
Maricopa County - Number	Nov.	3,970	-33	8	50,951	0
Maricopa County - Median Price	Nov.	75,300	0.5	5.3	73,600	3.6
HOUSING AFFORDABILITY INDEXES						
Metropolitan Phoenix - New Homes	3rd Qtr.	81	3.8	18.4	NA	NA
Metropolitan Phoenix - Resale Homes	3rd Qtr.	90	3.4	15.7	NA	NA
MORTGAGE INTEREST RATES (Conventional, 30-year, Fixed-rate)						
Maricopa County	Nov.	11.6	-3.3	*	NA	NA
Maricopa County	Dec.	11.0	-5.2	*	NA	NA
POPULATION ESTIMATES (In Thousands)						
Maricopa County	3rd Qtr.	1,835	1.3	5.1	NA	NA
Arizona	3rd Qtr.	3,260	1.1	4.3	NA	NA
ELECTRICAL POWER SALES (In Millions of Kilowatt Hours)						
Arizona	Nov.	2,518.3	-2.6	7.0	32,785.3	7.1

NA = Not Applicable.
* = Not Available.
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